

AMENDMENTS TO THE SPECIFICATION:

Add the following paragraphs after the paragraph beginning on page 4 at line 16 of the specification as so numbered in the published application number WO2004023914.

According to another aspect of the invention there is provided a communication apparatus comprising: a vibration conduction microphone; a speaker enclosure including a speaker and arranged to couple vibrations from the speaker to bone of a wearer; and attachment means coupled to each of said microphone and said speaker enclosure to facilitate attachment to an item of headgear for placement of said microphone and speaker enclosure against a rearward portion of the wearer's head, in use.

In some exemplary embodiments, the speaker enclosure includes: a first region to couple vibrations from the speaker to bones of the wearer's head; and a second region to couple vibrations from said speaker element to air for conventional hearing by the wearer. In some exemplary embodiments, the speaker enclosure includes: a housing about a speaker; and a resilient diaphragm attached to the housing, said diaphragm comprising the first region to couple vibrations from the speaker to bones of the wearer's head; the housing defining at least one opening comprising the second region to couple vibrations from said speaker to air for conventional hearing by the wearer. In some exemplary embodiments, a membrane is arranged on the housing to seal the at least one opening thereby shielding the speaker from water. In some exemplary embodiments, there is provided an acoustically transparent cover for the first opening. In some exemplary embodiments, an electrical cable is connected to the speaker to transmit electrical signals to the speaker, the housing defining an aperture accommodating the electrical cable and a sealant interposed between the cable and the housing, the sealant being selected to provide strain relief to the electrical cable. In some exemplary embodiments, a transducer is arranged in the housing adjacent the resilient diaphragm so that the speaker enclosure can be used to pick up vibrations from the wearer as well as to transfer vibrations to the wearer.

In some exemplary embodiments, the attachment means comprises: a first headgear strap engagement means fast with the vibration conduction microphone to receive a strap of the headgear; and a second headgear strap engagement means fast with the vibration conduction speaker enclosure to receive said, or an additional, strap of the headgear. In some exemplary embodiments, the first and second headgear strap engagement means include recesses formed into respective bodies of the vibration conduction microphone and the vibration conduction speaker enclosure to receive the headgear straps.

In some exemplary embodiments, the attachment means comprises a support structure to which the vibration conduction microphone and the vibration conduction speaker enclosure are mounted. In some exemplary embodiments, the headgear comprises a helmet and wherein the attachment means is adapted to be mounted to an internal support of the helmet. In some exemplary embodiments, the headgear comprises a helmet and wherein the attachment means is adapted to be connected to a nape adjustment strap of the helmet.

In some exemplary embodiments, the microphone includes: a housing; a transducer that is positioned in the housing; and an acoustic isolator that is also positioned in the housing and disposed about the transducer. In some exemplary embodiments, the acoustic isolator includes a visco-elastic material. In some exemplary embodiments, the acoustic isolator further includes a holder for holding the visco-elastic material. In some exemplary embodiments, the transducer comprises an accelerometer. In some exemplary embodiments, the housing comprises a flexible body configured to receive the accelerometer, acoustic isolator and holder.